

This listing of the claims will replace all prior versions, and listings, of claims in the application:

LISTING OF CLAIMS:

Claims 1-21 (Canceled)

Claims 22-27 (Canceled).

28. (Previously presented) A method of forming a microelectronic structure comprising:

forming and patterning a deep uv resist layer on a sacrificial light absorbing layer disposed on a dielectric layer;

etching the sacrificial light absorbing layer in a plasma comprising a C_4F_6 gas flow from about 14 to about 20 sccm, an argon flow from about 300 to about 500 sccm, a nitrogen flow from about 200 to 400 sccm and a pressure from about 40 to about 60 millitorr; and

etching the dielectric layer in a plasma comprising a C_4F_6 gas flow from about 10 to about 14 sccm, an argon flow from about 280 to about 350 sccm, a nitrogen flow from about 25 to 40 sccm and a pressure from about 80 to about 120 millitorr, wherein the sacrificial light absorbing layer and the dielectric layer etch at an etch rate from about 80 to about 120 times faster than the etch rate of the deep uv resist layer.

29. (Canceled)

30. (Previously presented) A method of forming a microelectronic structure comprising:

forming a deep uv resist layer on a sacrificial light absorbing layer that is disposed on a dielectric layer;

patterning a portion of the sacrificial light absorbing layer to define a trench;

forming a bottom width of the trench, wherein the ratio of the bottom width to a top width of the trench is about 1:1 by:

etching the sacrificial light absorbing layer in a plasma generated from a gas comprising a carbon to fluorine ratio that is between about 1:1 to about 2:3;
and

etching the dielectric layer in a plasma comprising C_4F_6 at a gas flow from about 10 to about 15 sccm, an argon flow from about 250 to about 350 sccm and a nitrogen flow from about 20 to about 50 sccm, and a pressure from about 90 to about 110 millitorr.

31. (New) A method of forming a microelectronic structure comprising:

forming and patterning a deep uv resist layer on a sacrificial light absorbing layer disposed on a dielectric layer; and

etching the sacrificial light absorbing layer and the dielectric layer in a plasma generated from a gas comprising C_4F_6 , a pressure from about 15 to about 100 millitorr, a power from about 1000 to about 4000 Watts, a C_4F_6 gas flow from about 10 to about 50

sccm, an argon flow from about 100 to about 1000 sccm, and a nitrogen flow from about 50 to 100 sccm to form substantially vertical sidewalls in the deep uv resist layer.

32. (New) The method of claim 31 wherein forming and patterning the deep uv resist layer comprises forming a deep uv resist layer and exposing at least a portion of the deep uv resist layer to a light with a wavelength of about 200 nanometers or less.

33. (New) The method of claim 31 wherein etching the sacrificial light absorbing layer and the dielectric layer in the plasma to form substantially vertical sidewalls comprises etching the sacrificial light absorbing layer and the dielectric layer in the plasma to form a polymer on the sidewalls of the deep uv resist layer that substantially prevents the deep uv resist layer from being etched.

34. (New) The method of claim 31 wherein forming the deep uv resist layer comprises forming the deep uv resist layer wherein the deep uv resist layer comprises a pre-etch sidewall angle that is substantially the same as a post etch sidewall angle.

35. (New) The method of claim 31 wherein etching the sacrificial light absorbing and the dielectric layer in a plasma generated from a gas comprising C_4F_6 comprises substantially etching the sacrificial light absorbing layer and then substantially etching the underlying dielectric layer.

36. (New) The method of claim 31 wherein etching the sacrificial light absorbing layer and the dielectric layer in the plasma to form a substantially vertical sidewall in the deep uv resist layer comprises etching the sacrificial light absorbing layer and the dielectric layer in the plasma to form a sidewall angle that is between about 86 and about 90 degrees.

37. (New) The method of claim 31 wherein forming and patterning the deep uv resist layer on the sacrificial light absorbing layer and the dielectric layer comprises forming and patterning the deep uv resist layer on the sacrificial light absorbing layer and the dielectric layer, wherein the deep uv resist layer comprises an acrylic polymer.

38. (New) The method of claim 28 wherein forming and patterning the deep uv resist layer comprises forming a deep uv resist layer and exposing at least a portion of the deep uv resist layer to a light with a wavelength of about 200 nanometers or less.

39. (New) The method of claim 28 wherein forming the deep uv resist layer comprises forming the deep uv resist layer wherein the deep uv resist layer comprises a pre-etch sidewall angle that is substantially the same as a post etch sidewall angle.

40. (New) The method of claim 30 further comprising etching the sacrificial light absorbing layer in a plasma comprising C_4F_6 gas at a gas flow from about 10 to about 20 sccm, an argon flow from about 400 to about 500 sccm, a nitrogen flow from about 200

to about 400 sccm, a pressure from about 40 to about 60 millitorr and a power from about 1000 to about 4000 Watts.